



# *1950-2300 Series*

# **OPERATOR'S** MANUAL



**ZTR®**

*Model Year 2004*

## ***IMPORTANT - READ CAREFULLY***

The Dixon<sup>®</sup> ZTR<sup>®</sup> Mower is both easy and fun to operate. However, any power mower must be operated properly to be safe. It is not a toy or a recreational vehicle. Before you start to use the mower, read the operator's manual carefully and become completely familiar with the controls.

The information contained in this manual applies to all Dixon<sup>®</sup> ZTR<sup>®</sup> 1950 and 2300 Series Mowers. Your Dixon dealer will gladly answer any questions.

See your dealer for warranty service, parts and repairs.

# INDEX

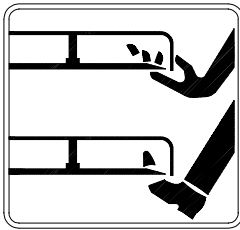
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1950/2300 Series  
Part No. 17077-0903

# SAFETY

***RIDING LAWN MOWERS,  
IF IMPROPERLY OPERATED,  
CAN CAUSE SERIOUS INJURY OR DEATH.***

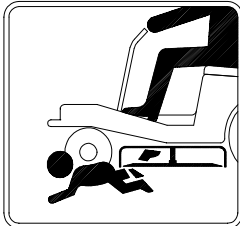
*The most common causes of injury to the operator or bystander...*



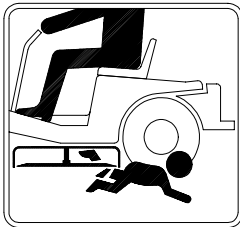
**BLADE CONTACT**



**TIP OVER**



**RUN OVER**



**BACK OVER**

*...read and understand this manual to prevent injuries.*

# SAFETY



## Safety Alert Symbol

When you see this symbol,  
BE ALERT to the potential for injury.

*Follow recommended safety precautions  
and safe operating practices.*



DANGER

(highlighted in red)

indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



WARNING

(highlighted in orange)

indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION

(highlighted in yellow)

indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

# SAFETY

*Failure to observe the following safety instructions could result in serious injury or death.*

## **GENERAL OPERATION:**

- Read, understand, and follow all instructions in the manual and on the mower before starting.
- Only allow responsible adults, who are familiar with the instructions, to operate the mower.
- Clear the area of objects such as rocks, toys, wire, etc., which could be picked up and thrown by the blade.
- Be sure the area is clear of other people before mowing. Stop mower if anyone enters the area.
- NEVER carry passengers.
- Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing.
- Be aware of the mower discharge direction and do not point it at anyone.
- Do not operate the mower without either the entire grass catcher or the deflector in place.
- Slow down before turning.
- Never leave a running mower unattended. Always turn off blades, set parking brake, stop engine and remove key before dismounting.

# SAFETY

## ***GENERAL OPERATION (continued):***

- Turn off blades when not mowing.
- Stop engine before removing grass catcher or unclogging chute.
- Mow only in daylight or good artificial light.
- Do not operate the mower while under the influence of alcohol or drugs.
- Watch for traffic when operating near or crossing roadways.
- Use extra care when loading or unloading the mower into a trailer or truck. Do not ride the mower when loading and unloading.
- Always wear safety goggles or safety glasses with side shields when operating mower.
- Data indicates that operators, age 60 years and above, are involved in a large percentage of riding mower-related injuries. These operators should evaluate their ability to operate the riding mower safely enough to protect themselves and others from serious injury.
- Follow the manufacturer's recommendation for wheel weights and counterweights.
- Maintain or replace safety & instruction labels as needed.

**WARNING:** *The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.*

 **SAFETY*****SLOPE OPERATION:***

*Slopes are a major factor related to loss-of-control  
and tip-over accidents,  
which can result in severe injury or death.*

*All slopes requires extra caution.*

*If you cannot back up the slope or if you feel uneasy on it,  
do not mow it!*

***DO***

Mow across the slope with your Dixon ZTR - never up or down.

Remove obstacles such as rocks, tree limbs, etc.

Watch for holes, ruts or bumps. Uneven terrain could overturn the mower. Tall grass can hide obstacles.

Use slow speed. Tires may lose traction on slopes even though the brakes are functioning properly.

Use extra care with grass catchers or other attachments. These can change the stability of the mower.

Keep all movement on the slopes slow and gradual. Do not make sudden changes in speed or direction.





## SAFETY

### ***SLOPE OPERATION (continued):***

#### ***DO (continued):***

Avoid starting or stopping on a slope. If tires lose traction, disengage the blades and proceed slowly down the slope.

If front wheels lift off the ground, pull the levers back to stabilize the mower.

#### ***DO NOT***

Do not turn on slopes unless necessary, and then, turn slowly and gradually downhill, if possible.

Do not mow near drop-offs, ditches, or embankments. The mower could suddenly turn over if a wheel is over the edge of a cliff or ditch or if an edge caves in.

Do not mow on wet grass. Reduced traction could cause sliding.

Do not try to stabilize the mower by putting your foot on the ground.

Do not use grass catcher on steep slopes.



## ***SERVICE:***

- Use extra care in handling gasoline and other fuels. They are flammable and vapors are explosive.

Use only an approved container.

Never remove fuel cap or add fuel with engine running. Allow engine to cool before refueling.

Do not smoke while refueling.

Never refuel the mower indoors.

Never store the mower or fuel container inside a building where there is an open flame.

If fuel is spilled on clothing, change clothing immediately.

To prevent fire and explosion caused by static electricity:

Never fill containers inside a vehicle or on a truck or trailer bed with a plastic liner. Always place containers on the ground away from your vehicle before filling.

When practical, remove fuel-powered equipment from the truck or trailer and refuel it on the ground. If this is not possible, then refuel such equipment on a trailer with a portable container, rather than from a fuel dispenser nozzle.

If a fuel dispenser nozzle must be used, keep the nozzle in contact with the rim of the fuel tank or container opening at all times until fueling is complete.

Do not use a nozzle lock-open device.

# SAFETY

## ***SERVICE (continued):***

- Never run a mower inside a closed area. The exhaust fumes are toxic.
- Keep nuts and bolts tight, especially blade attachment bolts, and keep equipment in good condition.
- Never tamper with safety devices. Check their proper operation regularly.
- Keep mower free of grass, leaves, or other debris buildup. Clean up oil or fuel spillage. Allow mower to cool before storing.
- Stop and inspect the equipment if you strike an object. Repair, if necessary, before restarting.
- Never make adjustments or repairs with the engine running unless otherwise specified.
- Grass catcher components are subject to wear, damage and deterioration, which could expose moving parts or allow objects to be thrown. Frequently check components and replace with original equipment parts, when necessary.
- Mower blades are sharp and can cut. Wrap the blade(s) or wear gloves, and use extra caution when servicing them.
- Batteries contain sulfuric acid. To prevent burns avoid contact with skin, eyes and clothing. To prevent a fire or explosion keep sparks and open flames away from battery.
- Before disconnecting the negative (-) ground cable, make sure all switches are OFF.

## SAFETY

### **CHILDREN:**

*Tragic accidents can occur if the operator is not alert to the presence of children.*

*Children are attracted to lawn mowers and the mowing activity.*

*NEVER assume children will stay where they were last seen.*

*Be alert to avoid accidents.*

- Keep children out of the mowing area and under the watchful care of another responsible adult.
- Be alert and turn mower off if a child enters the area.
- Before and during backing, look BEHIND and DOWN for small children.
- Never carry children. They may fall off and be seriously injured or interfere with safe mower operation.
- Never allow children to operate the mower.
- Use extra care when approaching blind corners, shrubs, trees, or other objects that may obscure vision.

# DIXON LIMITED WARRANTY POLICY

## Pro Models 1950 ~ 2300 ~ 2560

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DIXON ZTR MOWERS ARE WARRANTED AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP AND PROVIDES FOR REPLACEMENT OR REPAIR OF PARTS INCLUDING LABOR COSTS. THIS WARRANTY IS SUBJECT TO THE FOLLOWING CONDITIONS AND LIMITATIONS.

1. Home Owner Application: Dixon Pro Model used only at owner's primary place of residence is warranted for a period of two (2) years from date of purchase. Frame, body panels and fenders are warranted for the life of the mower.
2. Commercial Application: Defined as use other than, or in addition to, mowing at owner's primary place of residence. Units used in commercial application are warranted for a period of one (1) year from date of purchase or 400 hours of use, whichever comes first.
3. Warranty applies only to original retail purchaser of new and unused mowers and accessories.
4. All Dixon warranty must be accomplished by authorized Dixon dealers and in accordance with Dixon warranty policy and allowances. All warranty claims must be approved by Dixon Industries, Inc.
5. Battery Warranty: limited to 90 days from date of purchase.
6. Accessories Warranty (grass catchers, snow blades, covers, etc.): Limited to 90 days from date of purchase.
7. Warranty does not apply to damage in transit or incidents of misuse, negligence, accidents, or alteration. The use of parts or components other than those supplied by Dixon Industries VOIDS ALL WARRANTY.
8. The following items are not covered by this warranty policy:
  - (a) Pick up and delivery charges for transportation of mower to and from an authorized Dixon dealer's place of business.
  - (b) Routine maintenance or adjustments.
  - (c) Belts/blades/hydro filters.
  - (d) Engines - All engines used on Dixon ZTR mowers are warranted by each individual engine manufacturer.
  - (e) Any costs or expense of providing substitute equipment while repair work is being performed on a warranted mower.
9. There is no other express warranty. Implied warranties, including those of merchantability and fitness for a particular purpose are limited to the same duration of the express warranty and to the extent permitted by law any and all implied warranties are excluded. Liabilities for consequential damages under any and all warranties are excluded.

# SPECIFICATIONS

## Model ZTR 1950 and 2300

CHASSIS:	11 GA - rectangular tube
SEAT:	Designed for operator comfort by use of high-density closed cell foam padded back and arm rests, upholstered with Cordura™ water-repellent fabric. Seat is adjustable fore and aft. Mounted on operator suspension system.
MOWER DECK:	Two decks are available. The 60" is made of stamped steel. The 50" is made of 11 GA fabricated welded construction with external reinforcement ribs. Three blades combine for a 50" or 60" cut width. Cut height approximately 1.5" to 5" via 8 position lift handle.
BLADE DRIVE:	Electric clutch
DRIVE SYSTEM:	Each rear wheel is independently driven by a HydroGear BDP 10A pump and a White CE 14 hydraulic motor.
ENGINE:	
Model 1950:	19HP Kawasaki , overhead valves, replaceable oil filter, full pressure lube system, dual element air cleaner, integral fuel pump.
Model 2300:	23 HP Kohler Command, 4-cycle, V-Configuration, Overhed Valve, Air-Cooled, Gasoline, Vertical Shaft, Aluminum Head and Crankcase with Cast Iron Liners, Full Pressure Lubrication/Full Flow Filter, Pulse Type Fuel Pump, Fixed Jet Carburetor w/Smart-Choke, Electronic Ignition, In-line Fuel Filter, Dual Element Air Cleaner.
STARTING SYSTEM:	Electric by key switch operation with safety interlocks on parking brake and blade drive clutch.
TIRES:	Front    11 X 4 X 5 ribbed tread (16-21 lbs) Rear    20 X 10 X 8 Turf Master (8-14 lbs)
CAPACITIES:	Fuel - 11 gallon (approximately) Hydrostat Oil tank - 4 quart with in-line 40 micron filter Engine - 2 qts. SAE 10W30 (with filter)
DIMENSIONS:	Width    60" (50" Deck), 72" (60" Deck) Height   46.5" Length   75" Weight   737 lbs, (50" Deck), 770 lbs (60" Deck)

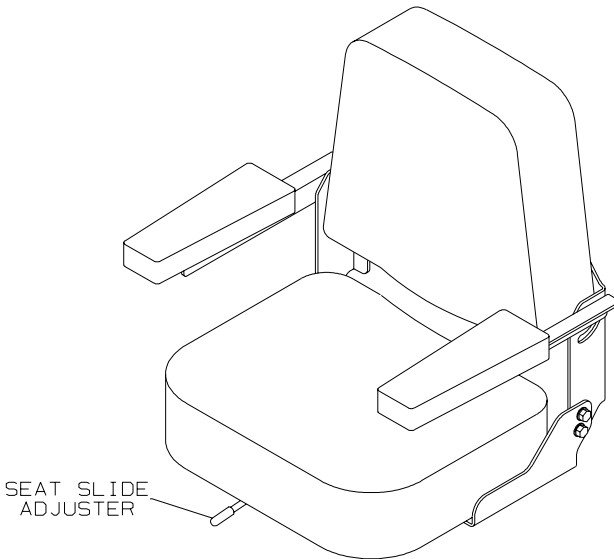
*Additional information provided in service instructions under the individual component.*

**SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE**

# SEAT ADJUSTMENT INSTRUCTIONS

## *Models 1950 & 2300*

1. Grasp seat slide adjuster and move it into adjustment position.
2. Slide seat forward or backward.
3. Release seat slide adjuster.



# CONTROLS

## CONTROL LEVERS

*Note: For access to the seat, move control levers to neutral position and swing them outward.*

### TO GO FORWARD:

- From neutral position, gently push both control levers forward.
- To increase speed, move levers further forward.

### TO GO BACKWARD:

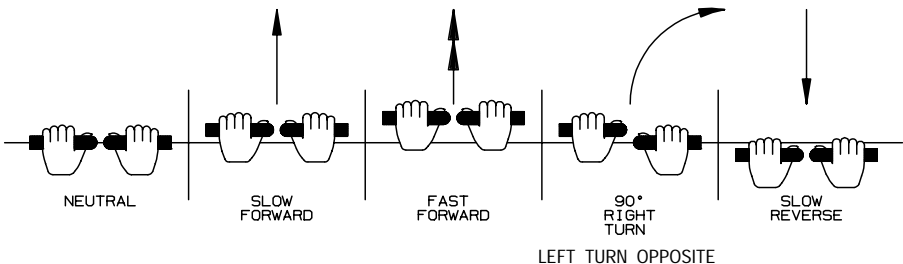
- From neutral position, gently pull both control levers toward you.

### TURNING:

- Turning is controlled by moving one control lever slightly forward or rearward of the other.
- To turn left, move left lever rearward of the right lever.
- To turn right, move right lever rearward of the left lever.
- To turn on mower's own axis (zero turning radius), stop and move one lever to reverse position and the other to forward position.

### BRAKING:

- To brake mower, move both levers in direction opposite of travel.



*Note: The pressure required to operate the mower is very light.*



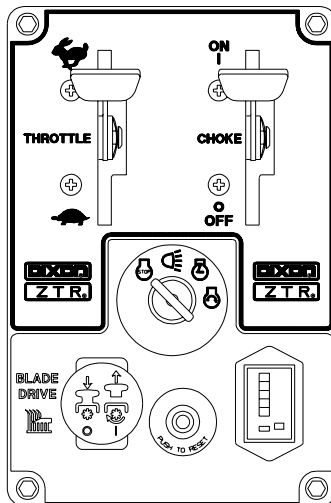
# CONTROLS

## ***CHOKE CONTROL LEVER:***

- Located on control panel to operator's right.
- Used to start a cold engine.

## ***THROTTLE CONTROL LEVER:***

- Located on control panel to operator's right.
- Controls engine speed, slow to maximum.
- While moving, throttle control should be set to MAXIMUM for wide open setting to insure adequate cooling of the engine and to maintain mower deck blade speed.



# CONTROLS

## ***PARKING BRAKE:***

The parking brake is designed to hold the mower from moving and is not intended for use in stopping the mower while it is in motion.



### **CAUTION**

Engage parking brake before starting engine.

## **TO SET PARKING BRAKE:**

The hand operated brake is located at the left hand side of the mower.

To engage brake, pull lever up (to the rear).

To release brake, move lever forward (down).

Note: Always set parking brake before dismounting.  
Release parking brake before moving mower.

## ***HYDRO GEAR SYSTEM:***

Allows the mower to turn on its own axis (zero turning radius).

Each lever controls one side of the mower.

Note: The pressure required to operate the mower is very light.

# CONTROLS

## ***BLADE DRIVE:***

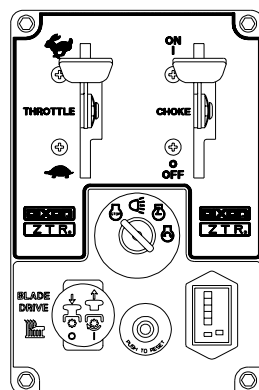
- Located on control panel to operator's right.

To engage blade: Pull up on switch.

To disengage blade: Push down.

## ***CIRCUIT BREAKER:***

- Located on control panel to operator's right.
- Protection of the electrical system is by (1) 15 amp circuit breaker.
- If circuit breaker trips, push button to reset.
- If this condition repeats, consult dealer for inspection and repair.



## ***MOWER DECK CUT HEIGHT LIFT LEVER:***

- Located to the right and front of operator.
- Controls the cutting height.
- Eight positions of adjustment.
- Depress trigger and move lever forward to lower deck.
- Depress trigger and pull lever back to raise deck.

*NOTE: Always use high position for transport.*

# OPERATION INSTRUCTIONS

The safe and successful operation of the 1950 or 2300 Series will depend upon the operator having the correct knowledge of all controls used on the mower and making good judgements about the terrain to be mowed.

*NEVER* allow anyone to operate the mower without complete knowledge of all the controls and their functions.

During initial operation, "learning to drive", set throttle at slow speed.

## ***TOWING:***

Towing a trailer or other attachment that is too heavy could damage the drive or cause the mower to become unstable. Limit loads to 500 pounds or less with this mower.

# OPERATION INSTRUCTIONS

## ***BEFORE OPERATING MOWER:***

1. Read and observe all safety instructions on your mower and in the manual.
2. Read engine manufacturer's operating and maintenance instructions.
3. Discuss proper maintenance with your dealer.
4. Check engine oil.
5. Check fuel cap to be sure it is in place.
6. Be sure parking brake is on.
7. Be sure mower blade drive is off.
8. Know how to stop engine. (Turn key to off position).

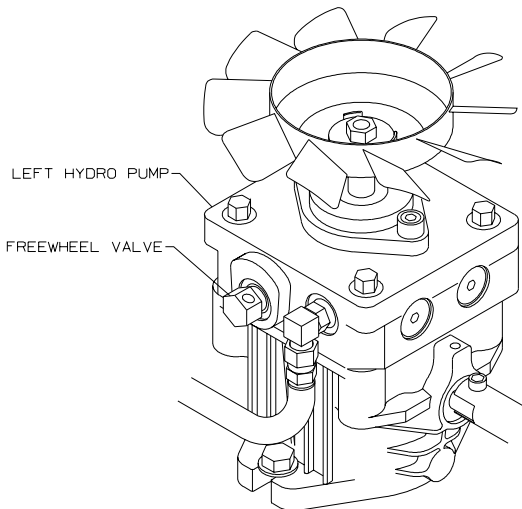
# OPERATION INSTRUCTIONS

## ***TO FREE WHEEL MACHINE (UNLOCK TRANSMISSION):***

Always turn off engine before engaging or disengaging the hydro release (free wheel) valves. Never attempt to move the valves with the engine running.

The hydro release valves are located beneath the seat, on the front side of the hydro pumps. To access the release valves, lift the seat frame assembly, use a 5/8" wrench to rotate bolt counter-clockwise two full turns to disengage pump. Repeat procedure for opposite pump. To engage, rotate each pump bolt clockwise until bolt is snug.

Note: Before pushing or towing tractor, the transmission must be unlocked, and parking brake released. The tractor should never be pulled at more than two miles per hour or for any appreciable distance.



# OPERATION INSTRUCTIONS



## ***TESTING OF SAFETY INTERLOCK SYSTEMS:***

Do not operate mower if safety switches are not operating properly.

### PARKING BRAKE SWITCH TEST:

- a) Place parking brake in OFF position.
- b) Turn ignition switch to START.

***ENGINE SHOULD NOT TURN OVER OR ATTEMPT TO START!***

### BLADE DRIVE SWITCH TEST:

- a) Place parking brake in ON position.
- b) Engage blade drive switch.
- c) Turn ignition switch to START.

***ENGINE SHOULD NOT TURN OVER OR ATTEMPT TO START!***

### SEAT SWITCH TEST:

- a) In a SAFE AREA away from bystanders, start the engine.
- b) Engage blade drive switch.
- c) Raise slightly off seat.

***ENGINE SHOULD STOP!***

***If any safety check fails:*** Do not operate the mower until the system has been checked and repaired by an authorized Dixon ZTR dealer!

# OPERATION INSTRUCTIONS

## ***SIDE DISCHARGE OF THE CLIPPINGS:***

In order to achieve optimum performance when side discharging the grass clippings, please read and follow the tips listed below.

Additional information can be found in the troubleshooting guide.

**CAUTION** Be sure that the deflector is properly installed on the discharge chute.

1. Set engine speed control to the wide open or full setting.
2. *Do Not Attempt To Cut Grass When It Is Wet.* Wet grass will clog the underside of the deck and discharge area.
3. If the grass is tall, place the mower deck cut height lever in the top or second notch. "Initially" overlap cutting swaths instead of a full swath with each pass. Some applications may require a second cutting.
4. *Keep The Underside Of The Mower Deck Clean.* Frequent removal of dried grass and dirt will allow the clippings to discharge correctly. (Disengage blade and stop engine prior to clearing grass from either the discharge chute or grass catcher components.)
5. *Maintain Sharp Blade(s) Throughout The Cutting Season.*



# OPERATION INSTRUCTIONS

## ***GRASS HEIGHT AND CUTTING SUGGESTIONS:***

Do not attempt to cut grass when it is wet.

If the grass is tall, place the mower deck cut height lever in the top or second notch. "Initially" overlap cutting swaths instead of a full swath with each pass. Some applications may require a second cutting.

As a rule of thumb, never cut off more than 1/3 of the total grass blade length.

Correct mowing height can reduce weeds and disease by 50% to 80%.

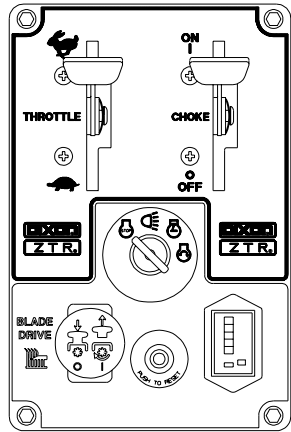
The following grass cut heights are based on adequate moisture conditions and normal thatch build-up in a healthy lawn. Some locations and applications may require slightly different cut heights. If in doubt, consult your local lawn professional for assistance.

Grass Types	Best Cut Heights
Bermudagrass	1 - 2"
Bluegrass	2 - 3"
Buffalograss	1 <sup>1/2</sup> - 3"
Ryegrass	2 - 3"
Tall Fescue	3 - 3 <sup>1/2</sup> "
Zoysiagrass	1 - 3"

# OPERATION INSTRUCTIONS

## **STARTING INSTRUCTIONS** *(cold engine):*

1. Position choke control in "on" position.
2. Position throttle control at 1/2 speed setting.
3. Insert ignition key and turn to "start" position. When engine starts, release ignition key. Key will return to "run" position.
4. Once engine starts to warm up, slowly move choke control to "off" position.
5. Move throttle control to the "fast" position.
6. Engine must be operated with throttle control in the "fast" position, or maximum setting to insure adequate lubrication and cooling of the engine, and cut quality of the mower deck.



### CAUTION

Do not operate the engine in an enclosed area due to the harmful exhaust gas produced.

# OPERATION INSTRUCTIONS

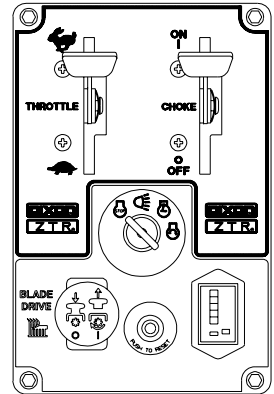
## STARTING INSTRUCTIONS

*(engine has been operated):*

1. Move throttle control to 1/4 to 1/2 setting.
2. Insert ignition key and turn to "start" position. When engine starts, release ignition key. Key will return to "run" position.
3. Move throttle control to "fast" position.

Note: Engine may require partial choke setting to start even if the engine has been operated for a period of time.

4. Engine must be operated with throttle control in the "fast" position, or maximum setting to insure adequate lubrication and cooling of the engine, and cut quality of the mower deck.



# OPERATION INSTRUCTIONS

## ***MOWING WITH A MULCHING ATTACHMENT:***

Mulching or recycling the grass clippings requires a totally different mowing approach than would be normal when side discharging or bagging the grass. There may be instances or conditions where it is not possible to hide all of the recycled or mulched clippings.

In order to achieve the best results, please read and follow the mulching tips listed below:

1. Set the engine speed control to the wide open or full setting.
2. Place the mower deck cut height selector in either the top or second notch. Never cut more than 3/4" to 1" off the grass at any one time. Attempting to cut more grass will result in the deck plugging and cause the engine to stall.
3. It may be necessary to cut the lawn twice to achieve acceptable mulching performance especially on first cuttings or if the lawn is heavily fertilized.
4. *Do Not Attempt To Cut Grass When It Is Wet.* Mulching performance will be very poor under wet grass conditions.
5. *Maintain Sharp Blade(s) Throughout The Cutting Season.* This is very important. Optimal mulching performance cannot be obtained with a dull or nicked-up blade.

# OPERATION INSTRUCTIONS

## ***MOWING WITH A MULCHING ATTACHMENT (continued):***

6. *Keep the Underside Of The Mower Deck Clean.*  
Remove all grass and dirt build-up from the underside of the pan, the baffles and deflectors after each use.
7. Alternate mower direction. This will evenly disperse the mulched grass clippings over the lawn for even fertilization.

If the mulching quality of the mower does not seem to be satisfactory, try one or more of the following tips:

1. Raise the height-of-cut setting on your mower.
2. It may be necessary to cut your grass more frequently.
3. Operate the mower at a slower ground speed.
4. Overlap cutting swaths instead of cutting a full swath with each pass.
5. Mow across the marginal areas a second time.
6. ***CUT HIGH - MOW OFTEN!***

# OPERATION INSTRUCTIONS

## ***MOWING WITH A GRASS CATCHER ATTACHMENT:***

In order to achieve optimum performance when mowing with a grass catching attachment, please read and follow the tips listed below.

1. Set engine speed control to the wide open or full setting. Allow engine, mower deck and blower to reach full RPM before attempting to mow.
2. *Do Not Attempt To Cut Grass When It Is Wet.* Wet grass will clog both the underside of the deck and the attachment chutes. Empty bags often to prevent plugging.
3. If the grass is tall, place the mower deck cut height selector in the top or second notch. "Initially" overlap cutting swaths instead of a full swath with each pass.
4. *Keep The Underside Of The Mower Deck Clean.* Frequent removal of dried grass and dirt will greatly assist in bagging of the clippings.
5. Use only the correct blade(s). Some grass catching attachments require a "high-lift" blade. See your dealer for advice on the type of blade(s) needed for your mower.
6. *Maintain Sharp Blade(s) Throughout The Cutting Season.*

# OPERATION INSTRUCTIONS

## ***MOWING WITH A GRASS CATCHER ATTACHMENT (continued):***

7. Operate the mower at a slower ground speed than when mowing without a grass catching attachment.
8. Some mowing applications/use of grass catchers may require that an optional weight box be fitted to the mower to counter the weight of grass in the bags. Please consult with your dealer for more information regarding installation and adding weight to the box.

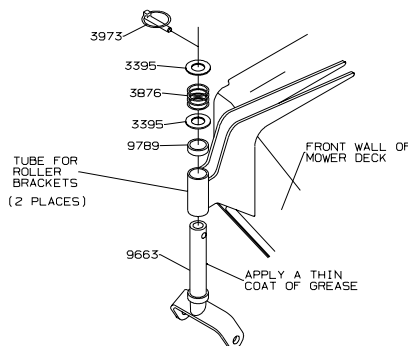
## **CAUTION**

- Watch for low hanging branches or other obstacles which might hit the catcher top while turning or backing the mower.
- Use care when backing to avoid pushing the grass bags into the frame or "hot" exhaust muffler of the engine.
- Disengage blade and stop engine prior to clearing grass from either the discharge chute or grass catcher components.
- Keep all attachment bolts tight.
- *Do Not* operate the mower with the grass catching attachment partially removed.
- *Important: Do Not* leave clippings in the bags while the mower is stored.

# OPERATION INSTRUCTIONS

## *DECK ROLLERS (60" deck):*

- Purpose:** The spring loaded deck rollers located at the front corners of the 60" mower deck are designed as an aid to limit turf scalping when mowing on uneven ground.
- Height:** Normal height settings as installed at the factory allows each roller to ride slightly above the turf. This setting should prove ideal under most mowing conditions.
- Adjustment:** Some mowing applications may require lowering of each front roller. To lower the roller, remove the pin, spring, washers and spacer (P/N 9789) from the top of roller bracket tube. Remove roller bracket from tube. Slide spacer P/N 9789 on roller bracket shaft and reassemble using washer, spring and pin at the top.
- Lubrication:** The use of a penetrating oil or light grease on the roller bracket shafts will keep roller moving freely.





# CARE AND MAINTENANCE



## CAUTION

*Before performing any maintenance, turn off engine,  
allow to cool & remove key.*

*Use extreme care when working on machinery.*

*Do not wear watch or jewelry. Do not wear loose fitting clothes,  
and observe all common safety practices with tools.*

## MAINTENANCE SCHEDULE

- Adjust traction drive idler.....after 5 hours break-in
- Check deck serpentine belt.....after 20 hours break-in  
(adjust bumper to approximately 1/2" thick)
- Check crankcase oil level.....before each use
- Clean grass from hydrostat fans.....before each use
- Clean grass & debris from muffler & manifold area.....before each use
- Clean grass under deck.....after each use
- Check tire pressure.....every 10 hours
- Inspect blades for sharpness.....every 10 hours
- Check hydrostatic transmission fluid.....every 25 hours
- Clean air filter element.....every 25 hours
- Check traction drive idler adjustment.....every 50 hours (see page 48)
- Grease all zerks.....every 50 hours
- Check all belts.....every 50 hours
- Change engine crankcase oil and filter.....(5 hours break-in) every 50 hours
- Replace air filter elements.....annually or every 100 hours
- Replace spark plugs.....annually or every 100 hours
- Change hydrostat oil and oil filter.....(100 hours break-in) every 500 hours

# CARE AND MAINTENANCE

## **ENGINE:**

For complete maintenance and operating information of the engine, please refer to the maintenance instructions furnished by the engine manufacturer and included in your Zero Turn Radius mower information packet.

## **BATTERY:**



### **CAUTION**

*Battery contains sulfuric acid electrolyte which is poisonous and corrosive.*

- This is a maintenance-free battery and the fluid level cannot be checked.
- Charge battery if required.

### OFF SEASON BATTERY STORAGE:

- DO NOT remove battery from mower.
- Clean top of battery and terminals with baking soda and water.
- Identify each cable so they can be reconnected to the correct terminal.
- Disconnect cables from terminals. ALWAYS disconnect ground cable first and reconnect last.
- Charge battery.

## **TIRES:**

Correct tire pressure is essential for efficient operation of the mower. Check tire pressure periodically. Inflate tires to the pressure listed below.

Front Tires	11 x 4 x 5	16-21 lbs. PSI
Rear Tires	20 x 10 x 8	8-14 lbs. PSI

*Lug nuts or lug bolts should be checked regularly for tightness.*

# CARE AND MAINTENANCE

## CUTTER BLADE MAINTENANCE:

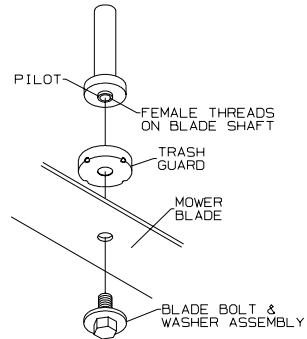


### CAUTION

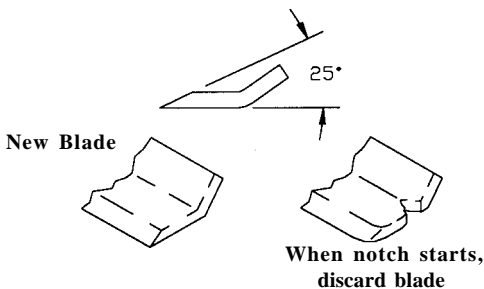
Stop engine and remove ignition key for safety. Wear heavy, thick gloves when holding onto cutter blade, avoid the sharp edge of the blade.

Check sharpness of mower blades after every 10 hours of operation. Observe proper blade position prior to removal.

1. Safely raise front of mower.
2. Hold or block blade from turning.
3. Loosen blade bolt and remove blade.
4. When replacing blade, tighten blade bolt securely. Refer to diagram. Be sure blade is centered on pilot before tightening nut to 60 ft. lbs.



Blades should be discarded when worn excessively.



**DANGEROUS!**  
DO NOT USE  
BLADE IN  
THIS  
CONDITION!

# CARE AND MAINTENANCE

## ***BELTS:***

Check belts every 50 hours. Replace any belts found to be in poor condition.

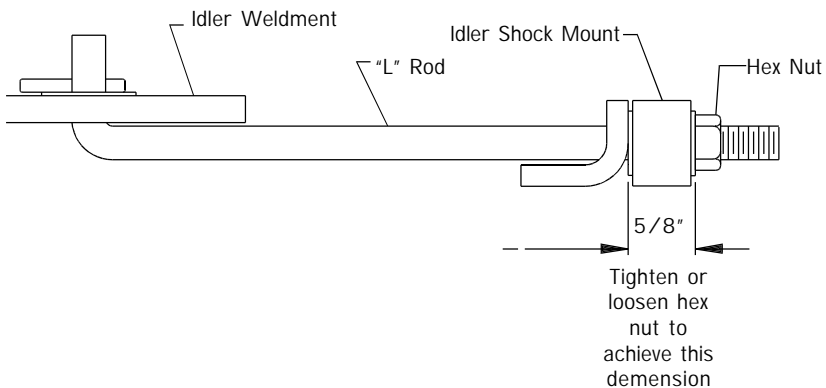
## ***BELT TENSION:***

**Engine to Mower Deck Belt:** P/N 6111 (50")  
P/N 6938 (60")

The engine to mower deck drive belts are automatically held in proper tension by springs which push the deck assembly forward and do not require any additional adjustment to be made.

**Mower Deck Serpentine Belt:** P/N 1300 (50")  
P/N 6939 (60")

Refer to illustration for adjustment procedure.



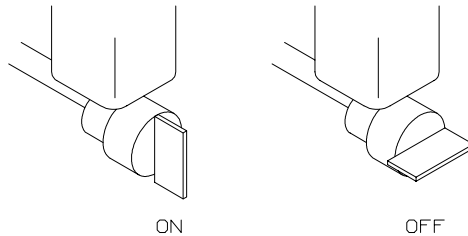
**Note:** Belt deflection or movement should be approximately 1/4" when measured at mid-point between pulleys. Periodically inspect both belt and idler systems.

# CARE AND MAINTENANCE

## **FUEL SHUT OFF VALVE:**

The fuel shut off valve is located at the bottom front of the fuel tank.

Always turn the valve to the "OFF" position when the mower is stored or not in use.



## **LUBRICATION:**

- CHASSIS:** (7) grease zerks used
- LOCATIONS:** (1) each brake band shaft  
(1) each front wheel caster tube  
(1) each mower deck hub
- SERVICE INTERVALS:** Every 50 hours of operation
- RECOMMENDED GREASE:** Name brand wheel bearing or multi-purpose grease. Once per season or 50 hours of operation (3 pumps each).

**Note:** Adequate lubrication of the caster tubes and mower deck hubs will help dispel moisture from within the bearing retention areas. Bearings are of a sealed variety.

# CARE AND MAINTENANCE



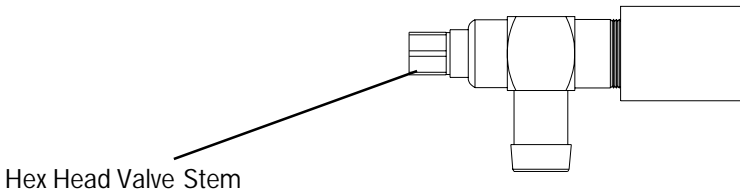
## CAUTION

Hot oil may cause burns. Allow engine to cool before draining oil.

### ***CHANGING THE ENGINE OIL:***

1. The “Dapco” oil drain valve is located on the right side of the engine crankcase on the 1950 and on the left side of the engine crankcase on the 2300.
2. Place a suitable container under the drain valve. The fitting of a short piece of hose will help direct the oil.
3. To drain, turn hex head valve stem counter--clockwise with 10mm wrench or socket. Open to full open (approximately 7 turns).
4. After engine is drained, tighten hex stem.

NOTE: Refer to engine manufacturer’s recommendations for frequency of oil changes.



# CARE AND MAINTENANCE

## ***OIL FILL:***

1. Drain oil.
2. Clean any spilled oil from engine and chassis.
3. Refill engine with type, and quantity of oil recommended by the engine manufacturer in engine literature.

## ***OIL FILTERS:***

1. Replace filter each time the oil is changed.
2. These filters can be obtained from your authorized engine dealer.

Kawasaki (P/N 49065-2078)

Kohler (P/N 12-050-01-5)

3. *The use of any other oil filter may cause damage to the engine.*

***PLEASE DISPOSE OF USED OILS AT PROPER COLLECTION CENTERS.  
PROTECT YOUR ENVIRONMENT.***

# CARE AND MAINTENANCE

## ***HYDROSTATIC TRANSMISSION OIL & FILTER SERVICE:***

*Dirt or water in oil can ruin the hydrostatic transmissions.*

### ***SERVICE INTERVALS:***

1. Initial filter service - 50 hours
2. Every 250 hours or once a year thereafter.

### ***OIL REQUIREMENTS:***

Any high quality engine oil with an API classification of SG/CD is recommended.

### ***RECOMMENDED OIL WEIGHT:***

Normal operation temperatures - 20W50  
Cold climate usage - 10W40

Another alternative that will provide excellent all-climate performance and extended time between oil changes is a 15W50 synthetic engine oil.

**OIL FILTER: P/N 7252 - IMPORTANT**

**The oil filter is a special design for use on "vacuum or suction" oil flow systems.**

**DO NOT:**

**Use automotive engine oil filters. These filters require a "pressure" to allow oil flow. Usage will result in an "air-lock" condition with possible damage.**



# CARE AND MAINTENANCE

## ***HYDROSTAT OIL MAINTENANCE PROCEDURE:***

Check the oil level in hydrostatic transmission oil reservoir after every 25 hours of usage. Clean the oil reservoir cap and the area around it prior to removal. Check the oil level. Oil should be approximately 1-3/8" below top of oil tank. Replenish as needed with SAE 20W-50 motor oil. DO NOT OVERFILL. When checking the oil level, be very careful to keep the reservoir clean.

Change the oil in the reservoir and hydrostat transmission oil filter after the first 100 hours of use. Then every 500 hours after that. Remove the filter and be sure all oil has drained from the reservoir. Replace with a new OEM filter (P/N 7252) and SAE 20W-50 motor oil.

*Please dispose of used oil at proper collection centers -  
protect your environment*

# CARE AND MAINTENANCE

## ***ELECTRICAL SYSTEMS:***

Keep all connections clean and tight.

## ***CLEANING THE MOWER:***

Wash mower periodically. Clean above and below deck.

High pressure washing and alkaline based soaps can cause damage to bearings and other parts of the mower. After washing your mower, start the engine and engage the mower deck for a few minutes to disperse any water that may have accumulated in bearings, pulleys or fans.

Note: Allow mower to cool before washing. If bearings are hot, they will draw moisture inside as they dry and cause corrosion.

## ***SERIAL NUMBERS:***

The serial number is located on frame at rear of engine.

## ***WARRANTY:***

See warranty information on page 12 or the Warranty Registration Form found in your owner's packet.

## ***PARTS/SERVICE:***

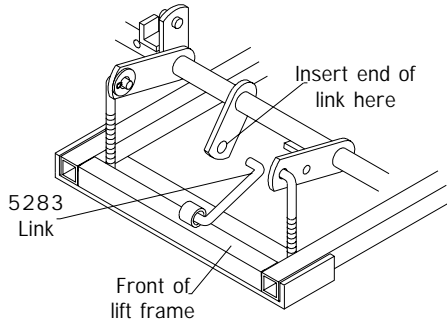
See your Dixon dealer for replacement parts, warranty or service.

PLEASE HELP PROTECT THE ENVIRONMENT BY AVOIDING ALL  
CHEMICALS WHICH MAY DAMAGE OR CAUSE HARM TO  
PLANTS AND ANIMALS IN YOUR AREA.

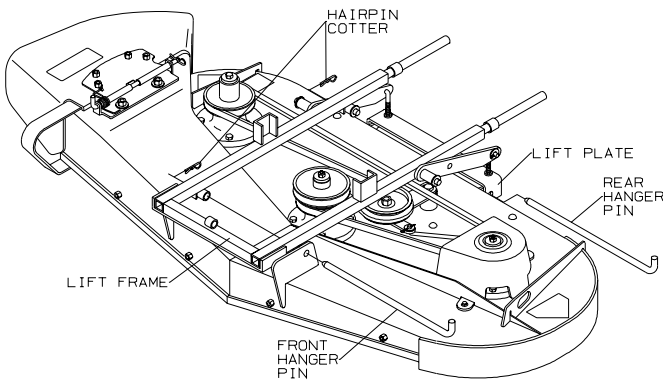
# CARE AND MAINTENANCE

## MOWER DECK REMOVAL:

1. Remove mower deck drive belt. To relieve belt tension, insert 5283 link (at front of lift frame) into tab illustrated below. Move lift handle into the lowest cut position. Belt can now be removed from mower deck pulley.



2. Remove front and rear deck hanger pins, as illustrated below.



3. Slide deck from beneath chassis.
4. Reverse procedure to re-install deck to chassis.

# CARE AND MAINTENANCE

## ***MOWER DECK LEVELING PROCEDURE:***

There are a total of (4) threaded adjusters which will control the attitude or pitch of the mower deck. The adjusters have locknuts on the bottom which can be turned up or down to raise or lower the front and rear of the mower deck. Deck should be level or pitched slightly higher in rear.

- A. Place the mower on a smooth level surface with front casters positioned towards deck. Check tire pressures to insure the mower has a correct stance. Inflate tires as required:

Front	16 - 21 lbs maximum
Rear:	8-14 lbs maximum

**NOTE:** To insure accuracy of leveling procedure, mower deck drive belt must be installed prior to leveling deck.

- B. *Wear heavy gloves.* Turn each outer blade tip to align with the deck or in a side-to-side manner.
- C. Measure from the floor surface up to the bottom of the blade tip on the discharge side of the mower deck. Retain this measurement. Move to the opposite side, check that measurement is the same. If adjustment is required, turn the nut on the bottom of the front threaded adjuster up or down until both side-to-side measurements are equal. Retain measurement.

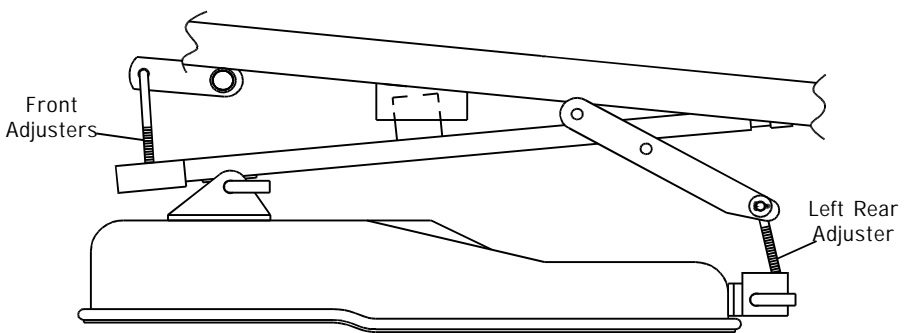
# CARE AND MAINTENANCE

## MOWER DECK LEVELING PROCEDURE

*(continued):*

- D. Turn both outer blades to align with the deck in front-to-rear manner. Turn left rear adjuster nut up or down until rear of mower deck is positioned level to  $1/8$ " higher in the rear than the side-to-side measurement. At this time, the mower deck will be suspended on (3) points (both front adjusters and the left rear adjuster). Move the right rear adjuster and take out the slack which will be present by turning adjuster locknut up.
- E. Confirm measurements once again. Blade tips should be level in a side-to-side manner. In the rear, blade tips should be level to  $1/8$ " higher than side-to-side measurement. In the front, blade tips should be level to  $1/8$ " lower than side-to-side measurement.

**NOTE:** This will place the mower deck in a base measurement position. Additional adjustment may be required to achieve desired cut for the type of grass or conditions being mowed.



Deck Leveling Adjustment Points

# CARE AND MAINTENANCE

## *STEERING CONTROL ADJUSTMENTS:*

To adjust neutral:

1. Lift seat.
2. Block up the unit so that the drive wheels are off the ground.
3. Loosen ball joint jam nuts on control rod.  
Note: The front jam nuts are left hand threads.
4. With steering control arms in the "out" neutral position, start the engine and run at fast idle.
5. Adjust the neutral position by turning the control rod until the wheels do not rotate.
6. Re-tighten the jam nuts on the control rod and check to see that the drive wheels are not turning.
7. Repeat steps 3-6 for the other side.
8. Shut off engine before removing the blocks.

# CARE AND MAINTENANCE

## ***STEERING CONTROL ADJUSTMENTS (continued):***

### **To adjust neutral springs:**

1. Loosen set screws on center spring stop collar located on the control rods. (Requires a 1/8" Allen wrench).
2. Swing control lever out. Tighten set screw on lock collar.
3. Repeat for opposite side.
4. Engage parking brake and lower seat frame.

Release parking brake and swing control levers in. If wheel creeps, repeat steps 1 and 2.

5. Stop engine and remove rear of machine from jack or blocks.
6. Return the seat to the operating position.
7. Drive machine with both levers in top speed position. If one side now drives slightly faster than the other adjust forward speed bolt in to contact stop sooner.

If levers are now uneven at top speed, loosen control lever mounting nut. Rotate lever to be even with other side and tighten nut.

# TROUBLESHOOTING

## 1. ENGINE WON'T TURN OVER

Mower blades engaged- . . . . . -disengage blades  
Drive not in neutral - . . . . . move control levers to neutral "OUT"  
Circuit breaker trips- . . . . . -reset breaker  
Dead battery- . . . . . -charge or replace  
Solenoid- . . . . . -consult dealer  
Ignition switch- . . . . . -consult dealer  
Starter- . . . . . consult dealer  
Parking brake not on- . . . . . engage parking brake

## 2. ENGINE WILL TURN OVER BUT WON'T START

No fuel- . . . . . -refuel and/or clean or replace fuel filters

## 3. HARD TO START ENGINE

Fuel line clogged- . . . . . clean fuel line and check fuel filter  
Faulty fuel pump- . . . . . consult dealer

## 4. ENGINE STARTS BUT CUTS OUT

Water in fuel- . . . . . drain old fuel-replace with new fuel  
Clogged fuel line- . . . . . check fuel filter  
Fuel tank vent plugged- . . . . . -clean fuel vent  
Faulty fuel pump- . . . . . -check vent

## 5. ENGINE OVERHEATED

Air intake screen or fins clogged- . . . . -clean intake screen and fins  
Oil level too low or too high- . . . . . -adjust oil level  
Running engine too slow - . . . . . -run engine faster



# TROUBLESHOOTING

## 6. ENGINE RUNS BUT MOWER WON'T MOVE FORWARD

*Drive belt broken or slipping- . . . . . -replace drive belt*  
*Transmission oil low- . . . . . -add oil*  
*Transmission locks in free-wheel position- . . . - lock position(see pg.22)*  
*Hydrostat oil filter plugged- . . . . . - replace filter*

## 7. MOWER LOSES POWER OR TRANSMISSION OVERHEATS

*Hydrostat transmission oil too low or high- . . . . . -add or drain oil*  
*Transmission damage- . . . . . - consult dealer*  
*Transmission blowing oil out cap- . . . - overfilled or water contaminated*

## 8. ENGINE STALLS WHEN BLADES ARE ENGAGED

*Operator not on seat- . . . . . - sit on seat*  
*Faulty interlock system- . . . . . -consult dealer*  
*Faulty blade spindle bearing- . . . . . - consult dealer*  
*Deck drive belt not properly routed- . . . . . -reroute*  
*Blades blocked by foreign material- . . . . . - clean under deck*

## 9. DRIVE SYSTEM

*Low on power- . . . . . - check belt tension*  
*Mower pulls to side- . . . . . - check tire inflation/adjust control linkage*  
*Mower creeps in neutral- . . . . . - adjust control linkage*

## 10. CUT QUALITY

*Skips in spots- . . . . . -check for loose belt/slow ground speed*  
*Cut uneven left to right- . . . . . - check tire inflation/level the deck*  
*Poor dispersal of grass- . . . . . -clean deck/check for loose belt*  
*Ends of grass blades are ragged- . . . . . - sharpen blades*

# ***STANDARD SERVICE PARTS LIST***

## ***50" Deck***

Blades

Hi-Lift - P/N 9444 (Standard)

Lo-Lift - P/N 9443

Belts

Engine to Mower Deck - P/N 6111

Serpentine - P/N 1300

Engine to Hydros - P/N 2469

## ***60" Deck***

Blades

P/N 9445 (Hi-Lift)

Belts

Engine to Mower Deck - P/N 6938

Serpentine Belt - P/N 6939

Engine to Hydros - P/N 2469

# OWNER INFORMATION

DIXON INDUSTRIES, INC.  
a BLOUNT International Inc. Co.  
P.O. Box 1569  
Coffeyville, Ks 67337-0945  
620-251-2000  
FAX 620-251-4117



*Date Purchased* \_\_\_\_\_

*Mower Model Number* \_\_\_\_\_

*Mower Serial Number* \_\_\_\_\_

*Purchased From* \_\_\_\_\_

*Name*

*Address*



*DATE OIL CHANGED:*

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*DATE ENGINE TUNED:*

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ZTR®Mowers



**WARNING:**

*The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.*

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of Dixon Industries, Inc.

DIXON INDUSTRIES, INC.  
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620-251-2000

1950/2300  
Part No. 17077-0903